**NEW MEXICO**
**ENVIRONMENT DEPARTMENT**

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***Michelle Lujan Grisham***
Governor

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Lt. Governor

***James C. Kenney***
Cabinet Secretary

***Jennifer J. Pruett***
Deputy Secretary

Certified Mail – Return Receipt Requested

September 4, 2019

Mr. William S. Goodrum, Manager
U.S. DOE / National Nuclear Security Administration
Los Alamos Field Office (NA-LA)
3747 West Jemez Road
Los Alamos, NM 87544

Mr. Michael W. Hazen, Associate
Laboratory Director, ESHQSS
Triad National Security, LLC
P.O. Box 1663
Los Alamos, NM 87545

**Re: Los Alamos National Laboratory; Major; Individual Permit; SIC 9711, 9922, 9661, and 9611; NPDES Compliance Evaluation Inspection (CEI); NM0028355, June 17-20, 2019**

Dear Mr. Goodrum and Mr. Hazen,

Enclosed please find a copy of the report for the referenced inspection that the New Mexico Environment Department (NMED) conducted at your facility on behalf of the U.S. Environmental Protection Agency (USEPA). This inspection report will be sent to the USEPA in Dallas for their review. These inspections are used by USEPA to determine compliance with the National Pollutant Discharge Elimination System (NPDES) permitting program in accordance with requirements of the federal Clean Water Act.

Further explanations and problems noted during this inspection are discussed on the completed form and checklist of this inspection report. You are encouraged to review the inspection report, required to correct any problems noted during the inspection, and advised to modify your operational and/or administrative procedures, as appropriate. If you have comments on or concerns with the basis for the findings in the NMED inspection report, please contact us (see the address below) in writing within 30 days from the date of this letter. Further, you are encouraged to notify in writing both the USEPA and NMED regarding modifications and compliance schedules at the addresses below:

NPDES Enforcement Coordinator
Environmental Protection Agency Region 6
NPDES Enforcement Branch (6ECDWM)
1201 Elm Street, Suite 500
Dallas, Texas 75202

Program Manager
New Mexico Environment Department
Surface Water Quality Bureau (N2050)
Point Source Regulation Section
P.O. Box 5469
Santa Fe, New Mexico 87502

David Long (long.david@epa.gov) is USEPA Region 6's Acting NPDES Enforcement Coordinator for individual permits. If you have any questions about this inspection report, please contact Erin Shea at 505-827-0418 or erin.shea@state.nm.us.

Sincerely,

*/s/Sarah Holcomb*

Sarah Holcomb
Program Manager
Point Source Regulation Section
Surface Water Quality Bureau

cc: Carol Peters-Wagnon, USEPA (6EN-WM) by e-mail
David Long, USEPA (6EN-WM) by e-mail
David Esparza, USEPA (6EN-WM) by e-mail
Amy Andrews, USEPA (6EN-WM) by e-mail
Nancy Williams, USEPA (6EN-WC) by e-mail
Brent Larsen and Tung Nguyen, USEPA (6WQ-PP) by e-mail
Isaac Chen, USEPA (6WQ-PP) by e-mail
Robert Italiano, NMED District II by e-mail
Karen E. Armijo, USDOE, NNSA, Los Alamos Site Office by e-mail
Enrique Torres, Triad National Security, LLC, EPC-DO by e-mail
Taunia Van Valkenburg, Triad National Security, LLC, EPC-CP by e-mail
Michael T. Saladen, Triad National Security, LLC, EPC-CP by e-mail
Jennifer Griffin, Triad National Security, LLC, EPC-CP by e-mail

EPA

Form Approved
OMB No. 2040-0003
Approval Expires 7-31-85

# NPDES Compliance Inspection Report

## Section A: National Data System Coding

| 1 | 2 | 3 | 11 | 12 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|
| Transaction Code | NPDES | | yr/mo/day | | Inspec. Type | Inspector | | Fac Type |
| N | 5 | NM0028355 | | 190617 | | C | S | 4 |

Remarks: NATIONAL LABORATORY

| 67 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 80 |
|---|---|---|---|---|---|---|---|---|
| Inspection Work Days | | Facility Evaluation Rating | BI | QA | Reserved | | | |
| | | 4 | N | N | | | | |

## Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*
Los Alamos National Laboratory (LANL) is jointly operated by the U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA), Los Alamos Field Office (NA-LA) and Triad National Security, LLC. Los Alamos County.

Entry Time /Date
~ 0830 hours / 06/17/2019

Exit Time/Date
~ 1700 hours / 06/20/2019

Permit Effective Date
10/01/2014
05/01/2015 (Modification)

Permit Expiration Date
09/30/2019

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
-Michael T. Saladen, Triad National Security, LLC, EPC-CP / 505-665-6085
-Jennifer Griffin, Triad National Security, LLC, EPC-CP / 505-667-6741
-Beth Gray, Triad National Security, LLC, EPC-CP

Name, Address of Responsible Official/Title/Phone and Fax Number

-William S. Goodrum, Manager, U.S. DOE National Nuclear Security Administration, Los Alamos Field Office, 3747 West Jemez Road, Los Alamos, NM 87544 / 505-667-5105

-Michael W. Hazen, Associate, Laboratory Director, Environment, Safety, Health & Quality and Safeguards & Security (ESHQSS) / Triad National Security, LLC, P.O. Box 1663, Los Alamos, NM 87545 / 505-667-4218

Contacted: Yes [ ] No [*]

Other Facility Data

**EPA FRS ID Location**
Latitude: 35.87142
Longitude: -106.31594

**SIC Nos.**
SIC 9711 National Security; SIC 9661 Space Research & Technology; SIC 9922 Scientific Research; and SIC 9611 Energy Development

## Section C: Areas Evaluated During Inspection

(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| M | Permit | S | Flow Measurement | M | Operations & Maintenance | S | CSO/SSO |
| M | Records/Reports | M | Self-Monitoring Program | S | Sludge Handling/Disposal | N | Pollution Prevention |
| N | Facility Site Review | M | Compliance Schedules | N | Pretreatment | N | Multimedia |
| M | Effluent/Receiving Waters | S | Laboratory | N | Storm Water | N | Other: |

## Section D: Summary of Findings/Comments (Attach additional sheets if necessary)

1. **See attached checklist report and further explanations.**

| Name(s) and Signature(s) of Inspector(s) | Agency/Office/Telephone/Fax | Date |
|---|---|---|
| **Erin Shea** */s/Erin Shea*<br>(f/k/a Erin S. Trujillo) | NMED/SWQB / 505-827-0418 | 09/03/2019 |
| | | |
| **Signature of Management QA Reviewer**<br>**Jennifer Foote** */s/Jennifer Foote* | **Agency/Office/Phone and Fax Numbers**<br>NMED / SWQB / 505-827-0596 | **Date**<br>09/03/2019 |

**U.S. Department of Energy (DOE) and Triad National Security, LLC**
**Los Alamos National Laboratory**
**Sanitary and Industrial Outfall NPDES Permit No. NM0028355**
**Compliance Evaluation Inspection**
**June 17 thru June 20, 2019**

**Further Explanations**

## INTRODUCTION

On June 17, 2019 thru June 20, 2019, Erin Shea of the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB), accompanied by Amy Andrews, P.E., Environmental Engineer, NPDES Water Enforcement, United States Environmental Protection Agency Region 6 during portions of the facility tours, conducted an announced National Pollutant Discharge Elimination System (NPDES) Compliance Evaluation Inspection (CEI) at the Los Alamos National Laboratory (LANL) in Los Alamos County, New Mexico, jointly operated by the U.S. Department of Energy (USDOE), National Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad).

Under assigned NPDES permit number NM0028355, LANL is classified as a major discharger under the federal Clean Water Act, Section 402 of the National Pollutant Discharge Elimination System (NPDES) permit program. This permit authorizes sanitary and industrial discharges from eleven (11) outfalls to several tributaries, described segments in Section 20.6.4.126 and 20.6.4.128 New Mexico Administrative Code (NMAC), thence to the Rio Grande of the Rio Grande Basin. Segment 20.6.4.126 NMAC includes the designated uses of coldwater aquatic life, livestock watering, wildlife habitat and secondary contact. Segment 20.6.4.128 NMAC includes the designated uses of livestock watering, wildlife habitat, limited aquatic life, and secondary contact.

Ms. Shea arrived at LANL Technical Area (TA) 59 ENV-RCRA offices at approximately 0830 hours on June 17th and conducted an entrance interview (made introductions, presented credentials and discussed the purpose of the inspection) with LANS and DOE staff attendees including Enrique (Kiki) Torres, Division Leader, Environmental Protection and Compliance Division (EPC) staff of Triad. Ms. Shea conducted tours of the facilities associated with this permit with Michael Saladen and Jennifer Griffin, also with Triad EPC, and other Co-Permittee facility representatives. An exit interview to discuss preliminary findings of the CEI was conducted on site with LANS and DOE staff in person or by phone on June 20, 2019. The Inspector left the facility at approximately 1700 hours on June 20, 2019. A follow-up conference call was conducted by Ms. Shea with Jennifer Griffin and Robert Gallegos, Triad EPC staff, to discuss biosolid management written procedures and record keeping on June 26, 2019.

NMED performs a certain number of CEIs each year for the USEPA. The purpose of this inspection is to provide the USEPA with information to evaluate the Permittee's compliance with the NPDES permit. This inspection report is based on information provided by the Permittees' representatives, observations made by the NMED inspector, and records and reports kept by the Permittees and/or NMED.

## FACILITIES / ASSOCIATED OUTFALLS

LANL is approximately 36 square miles. The eleven 11 outfalls are located at seven (7) Technical Areas (TA) associated with the following facilities:

| Treatment Facility / Facilities | Associated Outfall(s) |
|---|---|
| TA-3 Power Plant, Strategic Computing Complex (SCC) Cooling Towers,<br>Sanitary Effluent Reclamation Facility (SERF), and<br>Sanitary Wastewater System (SWWS) Facility | Outfall 13S<br>Outfall 001<br>Outfall 027 |
| Radioactive Liquid Waste Treatment Facility (RLWTF) | Outfall 051 |
| High Explosives Wastewater Treatment Facility (HEWTF) | Outfall 055 |
| Sigma Emergency Cooling / Roof Drain System | Outfall 022 |
| Los Alamos Neutron Science Center (LANSCE) Cooling Towers | Outfall 048 |
| Low-Energy Demonstration Accelerator (LEDA) Cooling Towers | Outfall 113 |
| National High Magnetic Field Laboratory (NHMFL) Cooling Towers | Outfall 160 |
| TA-55 Cooling Towers | Outfall 181 |
| Laboratory Data Communications Center (LDCC) Cooling Towers | Outfall 199 |

**CO-PERMITTEES AND PERMIT RENEWAL APPLICATION**

USDOE NNSA Los Alamos Field Office (LAFO) and Triad submitted to USEPA a notice of contract transfer dated September 5, 2018. Triad is a limited liability company, which consists of Battelle Memorial Institute, the Regents of the University of California, and the Regents of Texas A&M University. USDOE's contract for the previous contractor/co-permittee, Los Alamos National Security, LLC (LANS) expired on September 30, 2018. Triad provided USEPA updated signature authority / designated authorized representative in a letter dated December 11, 2018.

USDOE NNSA LAFO and Triad submitted a permit renewal application dated March 26, 2019. USEPA Region 6 determined the renewal application administratively complete in their letter dated April 25, 2019. Information in the renewal application was discussed with permittee representatives during the facility tours of this CEI. Following this inspection, Permittees submitted Renewal Application Supplemental Packages to USEPA Region 6 on August 19, 20 and 28, 2019.

**FINDINGS**

Treatment Schemes, including flow measurement and operations, for the associated treatment facilities are summarized on the attached checklists for each outfall. The following sections are arranged according to the format of the attached checklists for each outfall rather than being ranked in order of importance. Further explanations of findings that would apply to multiple outfalls or more than one associated facility are provided below.

**Section A - Permit Verification - Overall (M = Marginal)**

Permit verification findings and comments below (see attached outfall checklist) may not indicate noncompliance by the Permittees, but items for consideration by the Permittees and USEPA for the next permit term.

**Permit Updates/Comments**

1. Outfall 001 Authorized Discharge:

   The Current Permit summarizes authorized discharge of TA-3 Power Plant cooling tower blowdown, boiler blowdown drains, demineralized backwash, R/O reject, floor and sink drains, and treated

sanitary re-use. Clarification and/or updates to the authorized discharge description in Permit for treated sanitary wastewater, treated industrial re-use and cooling water wastewater appears needed as described in the March 2019 Renewal Application Fact Sheets and Supplements.

2. SCC Increased Discharge to either Outfall 001 and/or Outfall 027: SCC was undergoing construction and installation to increase cooling towers from 10 to 15 during this CEI. Average flow provided in the 2012 Renewal Application for Outfall 027 was 0.053432 million gallons per day (MGD) for 10 cooling towers. Planned changes, or in this case current construction underway, will increase the number of cooling towers to a total of 15 and potentially increasing flows from SCC at Outfall 027 to 0.076 MGD average and 0.157 MGD maximum as requested/described in the March 2019 Renewal Application Fact Sheet. Potential flows associated with the increased cooling towers at SCC were also included for Outfall 001 in the March 2019 Renewal Application Fact Sheet.

   Flow is monitored (measured) at each outfall, but flow is not an effluent limitation in the Current Permit. Depending upon the actual source waters and flow management of discharges, effluent characteristics (concentrations) may change. Permittees may contact USEPA Region 6 Permit Writer and/or Compliance staff to determine if increased discharge from additional SCC cooling towers to Outfall 027 or Outfall 001 would be authorized under the Current Permit.

3. TA-55 indirect discharge to Outfall 001: The Current Permit does not describe the potential future changes to route TA-55 blowdown to TA-3-336 Reuse Tank as requested or described in the March 2019 Renewal Application.

4. Outfall 022: The Current Permit does not address the reported unknown source of discharge at Outfall 022 and if authorized or regulated. Clarification to authorized discharge description appears needed in Permit. The March 2019 Renewal Application includes request to revise Permittee's outfall description to 03A022 in the Permit.

5. Outfall 113 / LEDA (Representative Sampling): Stormwater would potentially co-mingle with the blowdown associated with the currently inactive TA 53-293 cooling towers that have not discharged during the permit term. Stormwater was listed as a source of discharge in the March 2019 Renewal Application. The current outfall configuration may make obtaining a representative sample from two separate cooling tower blowdown sources difficult. Options for monitoring location should be considered prior to discharge occurring from the TA-53-293 cooling towers (e.g., monitoring location after treatment that does not co-mingle with stormwater, outfall re-configuration, slipline, combining blowdown discharge at outfall, separate recordkeeping and reporting, etc.).

6. Outfall 160 / NHMFL: The notified changes for construction to the NHMFL cooling towers and re-installation of treatment system were in progress during the CEI. Changes may affect the effluent characteristics (concentrations) of the discharge than the data submitted in the March 2019 Renewal Application.

7. Outfall 181 / TA-55: The Current Permit authorizes discharge of stormwater, cooling tower blowdown and other wastewater. Stormwater was described to have been re-directed and no longer co-mingles with discharge. Discharge of stormwater is not described for Outfall 181 in the March 2019 Renewal Application.

8. Leak Testing Dyes: The Current Permit does not address the potential future discharge of florescent dye testing chemicals for leak testing which was added to the list of pollutants for each outfall in the March 2019 Renewal Application.

9. Name / Addresses: The Current Permit does not include updated name and mailing information provided in the March 2019 Permit Renewal application. Update/clarification on the permit for USDOE NNSA Los Alamos Field Office (NA-LA) also appears needed in the permit.

10. Unauthorized Discharge Reporting: The Current Permit does not specifically address USEPA Region 6 compliance staff request to the Permittee Representative(s) to use this NPDES Permit Number NM0028355 for spills or unauthorized discharge reporting of facility operations at the entire facility. Twenty-four hour reporting conditions in Part III.D.7 of this NPDES permit states "*[t]he permittee shall report any noncompliance which may endanger health or the environment."* Permittee representatives conduct 24-hour reporting of spills or unauthorized discharges from operations at the facility verbally to USEPA and submit written reports by e-mail to both USEPA and NMED SWQB which reference this NPDES Permit No. NM0028355. Permittee representatives described that USEPA Region 6 staff requested the use of this NPDES permit number for tracking or filing purposes even. Types or examples of spills or unauthorized discharges reported include potable water from fire hydrant or fire suppression testing and line or valve leaks, steam condensate, small quantities of hydraulic oil spills from vehicles throughout the entire facility.

11. Other Test Methods: The Current Permit includes some, but not all **other test methods** (industry-specific methods) for required monitoring of pollutants/parameters/calculations not listed in 40 CFR Part 136 (e.g., Adjusted Gross Alpha; Perchlorate ($ClO_4$); and Tritium ($^3H$)). For example, the use of Solid Waste (SW) 846 6850 Modified was listed in Facility's written procedures for self-monitoring for Perchlorate. Perchlorate is not a pollutant listed in 40 CFR 136.3. Part III.C.5 of the Permit states *"[m]onitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit or approved by the Regional Administrator."* The Current Permit also does not indicate **reporting** requirements, if any, for blank corrected data that may be allowed by methods (e.g., EPA Methods 1668C).

12. Term Reporting: The Current Permit does not address reporting deadlines for permit term monitoring and reporting. For example, term Discharge Monitoring Reports (DMRs) were submitted to EPA for the period between October 1, 2014 through September 30, 2019 DMRs in 2017 (e-mail on Thursday, October 26, 2017 5:26 PM). Revised DMRs would need to be submitted if additional monitoring occurred for term pollutants after 2017.

13. Discharge Monitoring Reports / "No Discharge" Codes: The Current Permit does not address various no discharge codes used in electronic Discharge Monitoring Reports (DMRs). USEPA's EPA's Integrated Compliance Information System for the NPDES program (electronic database) include various "No Discharge" or "NODI" codes that have been entered by EPA staff based on information on the submitted DMRs. Some "NODI" codes are informational, but others indicate non-compliance. NODI codes and their use for specific outfall conditions or monitoring requirements are not provided in the Current Permit.

    For example, for Outfall 022, USEPA's electronic database for total residual chlorine data includes various NODI codes that have been transcribed by USEPA staff from the Permittee's DMRs. The more recent NODI-9 or "Conditional Monitoring – Not Required This Period" would be appropriate when there is no discharge of once-through cooling water under the Current Permit.

**Section B - Recordkeeping and Reporting Evaluation - Overall (M = Marginal)**

1. **TRC/pH**

   - Recordkeeping for Sample Collection Procedures and Self-Monitoring were not adequate (unsatisfactory) to document that holding times were met for Total Residual Chlorine (TRC) and pH. Reviewed copies of field log book entries used to complete Field Parameter Sheets did not include separate "time of sampling or measurements" and "time(s) analyses were performed" per Part III.C.4 (Record Contents) to document that the maximum holding times in 40 CFR 136.3 Table II were met. Approved methods in 40 CFR 136.3 is required in Part III.C.5 (Monitoring/Approved Methods) of the Permit.

   - Reviewed copies of field log books for Outfall 001, 022, 048, 113, 181 and 199 include more than one measurement for pH at each outfall. This would appear to indicate increased monitoring that shall be indicated on DMRs per Part III.D.5 of the Permit. However, permit representatives described that pH readings for the same sample are taken until the readings "stabilize." The initial reading was typically less than the final reading on reviewed copies of September 2018 field log book entries. Record-keeping does not indicate reason that the initial reading is invalid. Therefore, the minimum pH may not be consistent with the data reported on Discharge Monitoring Reports (DMRs). See Sections D and F below.

2. **Incomplete / Possible Incorrect DMRs**

   - LANL's Outfall 027 December 2015 DMR does not report a value for TRC, but indicates that 5 measurements were collected. USEPA electronic database shows NODI=X (Parameter/Value Not Reported). A REVISED DMR with the measurement or code would need to be sent / resent to USEPA w/copy to NMED SWQB Program Manager per Part III of the permit.

   - LANL's Outfall 001 DMR Total PCBs monthly average for yearly reporting period 10/2017 to 09/2018 may be 0.009 not 0.013 micrograms per Liter (µg/L) based on information in the March 2019 Renewal Application. Review of data reported, REVISED DMR, and/or clarification comments may need to be sent / resent to USEPA w/copy to NMED SWQB Program Manager per Part III of the permit.

3. **Data entered by USEPA staff into Electronic Database**

Permittee(s) are not authorized to electronically report monitoring data in USEPA's NetDMR database at this time. The following comments may not indicate noncompliance by the Permittees, but information entered by USEPA staff into their electronic database which needs to be updated. The Permittees may contact USEPA to confirm submitted records were received and/or if there are any questions about the data on the DMR for the following corrections:

   - USEPA electronic and public database includes an error and incorrectly shows a pH excursion during the September 2018 monitoring period for Outfall 001. The value 738 s.u. is incorrect in USEPA's electronic database for Outfall 001.

   - USEPA electronic and public database includes an error for Total Recoverable Aluminum concentration of <0.193 mg/L during the October 2017 to September 2018 monitoring period for Outfall 001. LANL's 001-Y DMR states the daily maximum was <0.0193 mg/L.

- LANL's Outfall 027 January 2018 DMR (E-mail EPC-DO: 18-087 NPDES Permit No. NM0028355, Monthly Discharge Monitoring Reports (DMRs) for January 2018, Sent February 27, 2018 7:20 AM) indicates "No Discharge" and states in comments that there was no discharge during the monitoring period. USEPA electronic database shows NODI=9 (Conditional Monitoring – Not Required This Period) for the January 2018 DMR. A NODI = C (No Discharge) would be consistent with information submitted on the DMR.

- USEPA electronic database appears inconsistent with measurement frequency in the Permit and shows "Not Received" for Outfall 027Y WET, 7-Day, 24-hr, Chronic Ceriodaphnia. LANL's Outfall 027 Toxcity DMR 1/5 year reporting period required in Part I of the Permit ends September 2019. WET testing with Ceriodaphnia dubia and Flathead Minnow species conducted in 2015 passed as summarized in the March 2019 Renewal Application. The Permittee may contact EPA Compliance to confirm reporting deadline requirements.

- USEPA electronic database indicates that the June 2018 Quarterly Toxicity DMR for Outfall 051 was not received. A NODI = C (No Discharge) would be consistent with information submitted on the T051Q DMR submitted (E-mail EPC-DO: 18-273 NPDES Permit No. NM0028355, Monthly Discharge Monitoring Reports (DMRs) for June 2018 and Quarterly DMRs for April 2018 through June 2018, Sent Friday, July 27, 2018 12:15 PM)

**Section D - Self-Monitoring - Overall (M = Marginal) and**
**Section F - Laboratory - Overall (S = Satisfactory) except for pH**

Permittee has various written quality assurance procedures, including written Quality Assurance Project Plan (QAPP) for NPDES Industrial Point Source Permit Self-Monitoring Program effective June 11, 2018 with a renewal date in 2020. An additional sampling and analysis plan was provided in the March 2019 Renewal Application. Permittee participates in USEPA Discharge Monitoring Report – Quality Assurance (DMR-QA) Studies. Permittee analytical measurements on-site include pH, Total Residual Chlorine (TRC) and temperature as required by Part I of the Permit; and sulfides for effluent characteristics required on NPDES permit renewal applications.

1. **Written Quality Control Procedures**: The following observations do not indicate noncompliance, but the need for review, corrections, clarifications or formatting to document self-monitoring would be in accordance with 40 CFR 136.3, including Table II—Required Containers, Preservation Techniques, and Holding Times as required in Standard Conditions Part III.C.5 (Monitoring) of the Permit. Updates and/or clarifications to facility's written QAPP appear needed to further ensure Part III.B.3.a (Proper operation and maintenance, adequate laboratory controls and appropriate quality assurance procedures) of the Permit are met. For example:

   - QAPP, for this permit, included a document owner/subject matter expert signature page that was not up to date with current employee(s).

   - Written Quality Procedure for this permit dated May 23, 2017 with renewal date in 2020 included a signature page that was not up to date with current employees. Also, the 2017 document's Sampling and Analysis Plan includes a table that among other things includes parameters, containers, preservation, and methods that needs updates and clarifications, for example:

     -Pesticide methods and extractions approved under 40 CFR 136.3;

     -Specific bottle cap or lid type material for PCBs (e.g., FP-lined cap is polytetrafluoroethylene (PTFE); Teflon®, or other fluoropolymer);

-Maximum holding time for BOD (e.g., required maximum holding time for BOD5, which is a 5-day test, in 40 CFR 136.3 Table II, is 48 hours);

-Method revision date and/or versions in 40 CFR 136.3 for all pollutants;

-Sample fraction (dissolved) and pH requirements for Chromium VI;

-Cooling adjustment preservation for Oil & Grease monitoring;

-Required Oil & Grease monitoring for Outfall 055; and

-Preservation for E. coli bacteria monitoring with 0.008% sodium thiosulfate ($Na_2S_2O_3$).

2. **Methods for pH**: Holding times, as discussed above, were not documented on reviewed field log book entries. "Samples should be analyzed as soon as possible after collection" per 40 CFR 136.3 Table II Footnote. Record-keeping and written quality management documents for pH indicate that the Permittee uses Standard Methods (SM) 4500-H+. Regarding stabilization or equilibrium, the method states *"Establish equilibrium…by stiring…gently"* or for the probe *"immersing in sample"* and *"[t]ake a fresh sample to measure pH."* SM 4500-H+ includes discussion on probe storage. Permittee representatives described that the pH meter probe was not stored in potassium chloride (KCl) solution provided by manufacture, but a buffer solution. Follow up with the manufacturer to ensure probe life is recommended (e.g., confirm proper storage solution, length of time that probe may be stored in buffer, etc.).

**Attachments**

**Individual Outfall Checklists with Findings**

Outfall 001 - TA-3 Utilities & Infrastructure Power Plant / Sanitary Effluent Reclamation Facility (SERF)

Outfall 13S - TA-46 Utilities & Infrastructure Sanitary Wastewater System (SWWS) Facility

Outfall 022 - Sigma Emergency Cooling / Roof Drain System

Outfall 027 - Strategic Computing Complex (SCC)

Outfall 048 - Los Alamos Neutron Science Center (LANSCE) Cooling Towers

Outfall 051 - Radioactive Liquid Waste Treatment Facility (RLWTF)

Outfall 055 - High Explosives Wastewater Treatment Facility (HEWTF)

Outfall 113 - Low-Energy Demonstration Accelerator (LEDA) Cooling Towers

Outfall 160 - National High Magnetic Field Laboratory (NHMFL) Cooling Towers

Outfall 181 - TA-55 Cooling Towers

Outfall 199 - Laboratory Data Communications Center (LDCC) Cooling Towers

**Outfall 001 - TA-3 Utilities & Infrastructure Power Plant / Sanitary Effluent Reclamation Facility (SERF)**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit summarizes the authorized discharge as TA-3 Power Plant cooling tower blowdown, boiler blowdown drains, demineralized backwash, R/O reject, floor and sink drains, and treated sanitary re-use. Clarification/updates to the authorized discharge description to include process, sanitary and/or cooling water appears needed in Permit.**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. **See Further Explanations** | ☒ Y ☐ N ☐ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **See Outfall 13S checklist for TA-46 Sanitary Wastewater System (SWWS) Facility. See Outfall 027 checklist for Strategic Computing Complex (SCC). Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMRs) of the Permit. See Sections D & F below. NA = Not documented**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Minimum pH (One field log entry not written clearly in 9/2018)** | ☐ Y ☒ N ☐ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☒ S ☐ M ☐ U ☐ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☒ Y ☐ N ☐ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☒ Y ☐ N ☐ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☒ Y ☐ N ☐ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☒ Y ☐ N ☐ NA |
| e) DATES AND TIMES OF ANALYSES. **TRC and pH** | ☐ Y ☒ N ☐ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☒ Y ☐ N ☐ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. | ☒ S ☐ M ☐ U ☐ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **TA-3 Power Plant, Sanitary Effluent Reclamation Facility (SERF) and SCC operate 7 days/week. Flows dechlorinated at TA-3 Manhole A with Sodium Metabisulfite prior to discharge. See below for more details.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☒ S ☐ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. **Overall satisfactory except for SERF reject water basin freeboard marks (see below)** | ☒ S ☐ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. **Back up generators planned** | ☐ S ☒ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. **See below for compliance schedule status.** | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **SERF = 2 operators on-site or available** | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. | ☒ Y ☐ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☒ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☒ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? **Reported w/DMRS** ☒ Y ☐ N ☐ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit requires monitoring for TSS, E.coli bacteria, TRC, Total Recoverable Aluminum, Dissolved Copper, Adjusted Gross Alpha, Temperature, Total PCBs, pH and WET.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **Location at outfall** ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **24-hour Composite required** ☒ Y ☐ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

**Refrigeration temperature during collection not documented**
6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **24-hr Composite required in Current Permit** ☒ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires continuous record. Flows Average = 0.154 MGD / Max = 0.333 MGD and potential future flow average = 0.199 MGD / Max = 0.439 MGD (Source: March 2019 Renewal Application). Since October 2018, the reported maximum flow was 0.4748 MGD. Meter calibration prior to CEI documented on 4/22/2019.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **9" Parshall Flume / Flow Transmitter FT-960**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☒ Y ☐ N ☐ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☒ Y ☐ N ☐ NA

6. HEAD MEASURED AT PROPER LOCATION. ☒ Y ☐ N ☐ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☒ Y ☐ N ☐ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS.☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS: **Contract laboratories not inspected. Permittee conducts Temperature, pH, TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

**Overall satisfactory except for pH – See Further Explanations**

4. QUALITY CONTROL PROCEDURES ADEQUATE. **for updates/clarifications for one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Laboratory = 100 %** OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**
**Pacific EcoRisk / 2250 Cordelia Road, Fairfield, CA 94534 / 707-207-7760 / WET**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **001** | **None** | **None** | **None** | **None** | **None** | **Clear** | **Temp, PCB, WET** |

RECEIVING WATER OBSERVATIONS: **Discharges to Sandia Canyon in 20.6.4.126 NMAC. Exceedances reported for Temperature (07/2016) and PCBs 2015-2016 (Previous Finding). The last reported PCB exceedance occurred in August 2018. See below for more details on exceedances and compliance schedules.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*

DETAILS: **See Outfall 13S checklist for Biosolids Management at TA-46 Sanitary Wastewater System (SWWS) Facility. NA = Not evaluated on this checklist.**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. **Outfall 001** ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. **See Outfall 13S / SWWS Checklist** ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: **See Outfall 13S** (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

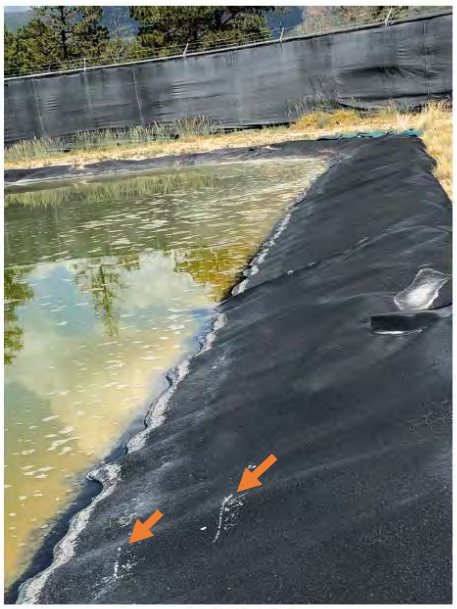
9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE – CONT'D**

**DETAILS – CONT'D**: At SWWS, treated sanitary wastewater, process water and cooling water is pumped to a 500,000-gallon reuse and fire protection tank at TA-3 Power Plant, then SERF. Further tertiary treatment for industrial reuse at the Power Plant and SCC is conducted at SERF to remove silica and includes precipitation, pH adjustment, microfilters, and reverse osmosis (RO). Facilities use or add potable water makeup, and various sodium chloride softeners, pH adjustment chemicals, corrosion inhibitors, antiscalant and biocide chemicals. Discharge sources to Outfall 001 include blended flows of TA-3 Power Plant once through cooling water, treated sanitary effluent from SWWS, treated SERF effluent, and/or cooling tower blowdown from SCC. Flows from TA-3 Power Plant once through cooling water, treated sanitary effluent from SWWS, and treated SERF effluent are dechlorinated at Manhole A. Potable water makeup, treated SERF effluent makeup, and cooling tower blowdown from SCC blend with the TA-3 Power Plant, SWWS and/or SERF flows at Manhole B. Flows from Manhole B discharge to Outfall 001. Blowdown from SCC can also be routed to SWWS or SERF, or discharged at Outfall 027. Industrial sludge and solids are dewatered by filter press at SERF and disposed at approved landfills. SERF RO concentrate is routed to evaporation basins or SWWS. The NPDES permit does not authorize discharge from the five (5) TA-60 SERF reject water evaporation basins (ponds/lagoons) on Sigma Mesa. A Notice of Planned Change to Reroute the Reverse Osmosis Reject to SWWS submitted to USEPA dated February 22, 2019 describes operations to maintain freeboard in the basins. Approximately 300,000 gallons of non-hazardous wastewater was shipped for off-site disposal. Planned changes included plans to reroute RO reject to SWWS (estimated maximum volume would be 10,000 gallons per day or approximately 10% of the SWWS influent), if needed; redistribute water between the five SERF basins to maintain the required freeboard; and use of mechanical aerators to enhance the evaporation rate.

**SERF Reject Water Evaporation Basins Image Details / Example of Maintenance of Freeboard**: Mechanical aerators were turned off while conducting the tour at the SERF reject water evaporation basins (ponds/lagoons). Arrows in photo below point to the engineer's marks for freeboard which are visible on the north side of this basin. Freeboard marks, if any, did not appear to continue or were difficult to discern at the corner of this basin shown in the top right corner of the image. Freeboard marks are difficult to maintain on the geotextile material according to the Facility Representative. Sandbags in the corner were placed to control erosion toward the basin/geotextile as described by the Facility Representative. Review of engineer's marks for freeboard, especially at the corner of all basins, and alternative types of markings appeared needed. No evidence of discharge or unauthorized flows outside the SERF reject water basins was observed.

LA-UR-19-25951



**Outfall 001**
**Photograph SERF Basins NE Corner with Engineers Marks for Freeboard – 6/18/19 @1107AM**

**SECTION C - OPERATIONS AND MAINTENANCE – CONT'D**

Image Source: The above photograph was taken by Jennifer Griffin, Triad, EPC-CP as requested by Erin Shea, NMED SWQB on June 18, 2019 at 1107 hours. The image above is an excerpt from an Adobe Acrobat file provided by Ms. Griffin who maintained the original electronic image.

**Reported Bypass**: Following this CEI, approximately 500 gallons overflowed from the TA-3-336 Reuse Tank on July 18, 2019 due to an operational issue with the tank's level indicator as reported to USEPA (E-mails sent Thursday, 7/18/2019 4:35 PM and 5-day report sent Tuesday 7/23/2019 2:08 PM) with copy to SWQB. As reported by the Permittee, the overflow of SWWS effluent from the Reuse Tank is considered an "unanticipated" bypass of final treatment (dechlorination) and is reportable as a "Bypass of Treatment" under Part III, Section B.4.b(2) of the NPDES Permit.

**SECTION G - EFFLUENT/RECEIVING WATERS – CONT'D**

**DETAILS – CONT'D**: Part I.B of the Permit includes reporting for all effluent limitations with compliance schedules in Part I.A of the Permit including semi-annual progress reports due by August 31 for the period of January – June, and by February 28 for the period of July– December. Outfall 001 has a compliance schedule for 6T3 temperature (°C) effluent limitation of 20 °C that replaces the monthly average and takes effective on the date one-day before the permit expiration date. "6T3 temperature" means the temperature not to be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days.

**Temperature Effluent Limitations/Compliance Schedule Status**: Since the reported exceedance in 2017, reported temperatures have not exceeded the monthly average or daily maximum effluent limitation of 24°C. The submitted semi-annual report dated February 27, 2019 summarizes a Sandia Canyon temperature study, coordination with NMED SWQB Monitoring Assessment and Standards Section staff, and cooling tower test conducted in August 2018. The 6T3 effluent limitation was not met during periods in June-August 2018. The submitted February 2017 Semi-Annual Report states "*Facility personnel at the TA-3 Power Plant continue to evaluate available technology for a permanently installed temperature measuring/recording device compatible with the facility's existing instrumentation.*" The Current Permit requires 6T3 monitoring at a frequency of 1/hr on September 29, 2019.

**PCBs Effluent Limitations:** Part I of the permit requires Total PCB (Congener Method) monitoring once per year. Exceedances of Total PCBs was discussed in the 2015 CEI report. Reported Total PCB concentration reported in 2015-2016 and in a sample collected on August 28, 2018 from Outfall 001 (13,300 pg/L) exceeded the monthly average and daily maximum limitation of 640 pg/L in Part I of the Permit.

**Whole Effluent Toxicity (WET) Monitoring**: Quarterly monitoring and reporting for Whole Effluent Toxicity (WET) testing for Outfall 001 is required in Part I of the Permit. Failed test results were discussed in the 2015 CEI report. Since May 2015, there have been 8 reported failed tests/retests for "No Observed Lethal Effect Concentrations" for the Ceriodaphnia dubia water flea species.

**Outfall 13S - TA-46 Utilities & Infrastructure Sanitary Wastewater System (SWWS) Facility**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes***).
DETAILS: **Permit authorizes discharge of treated sanitary wastewater from TA-46 Sanitary Wastewater System (SWWS) facility directly to Outfall 13S. Treated effluent is piped to TA-3 SERF for industrial reuse or discharge to Outfall 001.**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **Permit update needed** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. | ☐ Y ☐ N ☒ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☐ U ☒ NA (*FURTHER EXPLANATION ATTACHED **No***).
DETAILS: **No discharge occurred during reporting periods or "NODI = C." If discharge, permit requires composite samples for BOD, TSS, Total PCBs and WET monitoring. NA = Not evaluated (no discharge) or not applicable.**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. | ☐ Y ☐ N ☒ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☐ S ☐ M ☐ U ☒ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☐ Y ☐ N ☒ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☐ Y ☐ N ☒ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☐ Y ☐ N ☒ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☐ Y ☐ N ☒ NA |
| e) DATES AND TIMES OF ANALYSES. | ☐ Y ☐ N ☒ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☐ Y ☐ N ☒ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☐ S ☐ M ☐ U ☒ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. | ☐ S ☐ M ☐ U ☒ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. **See above** | ☐ Y ☐ N ☒ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **No***).
DETAILS: **Facility operates 7 days/week and treats domestic sewage from the both the laboratory and Elk Ridge subdivision. SWWS has 5 Wastewater Level 4 (WW4) and 2 Wastewater Level 3 (WW3) State of New Mexico Certified Operators. Treatment system summarized below. Collection system overflows are reported on DMRs.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☒ S ☐ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. | ☒ Y ☐ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☒ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☒ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☒ Y ☐ N ☐ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☒ N ☐ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS: **SWWS has not discharged to Outfall 13S. If discharge at Outfall 13S, permit requires 24-hr flow composite flow proportioned samples for BOD, TSS, & Total PCBs monitoring. See Section H below.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **Location at Outfall** ☐ Y ☐ N ☒ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **24-hour Composite required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☐ Y ☐ N ☒ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **24-hr Composite required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☐ Y ☐ N ☒ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. ☐ Y ☐ N ☒ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☐ Y ☐ N ☒ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS: **Design flow was described as 0.6 MGD by Facility Representatives. Flow Average = 0.229 MGD / Max = 0.418 MGD (Source: March 2019 Renewal Application). Permit requires continuous record flow measurements and loading calculations for pollutants. Flume cleaning, installation levels and calibration checks would be required prior to discharge. NA = Not evaluated / No discharge**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **6-inch Parshall flume / Totalizing Meter FIT 461**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. **No discharge** ☐ Y ☐ N ☒ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. **Flow Meter Field Calibration Report dated June 12, 2019.** ☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Effluent characteristic (operation, not discharge) data provided in 2019 Renewal Application. Permittee conducts pH and TRC analyses/measurements on site.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH - See Further Explanations for updates/clarifications in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Laboratory =100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. **Operational Samples (Renewal Application) / Biosolids** ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED
**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **13S** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No discharge** | **No Discharge** | **None** |

RECEIVING WATER OBSERVATIONS: **Discharge would be above Canada del Buey (within LANL) in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS: **Details discussed below. Maintained temperature logs were not evaluated.**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☒ S ☐ M ☐ U ☐ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. **See Further Explanations** ☐ S ☒ M ☐ U ☐ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: **Public Contact Site** (e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE – CONT'D**

**DETAILS – CONT'D**: Facility has a Waste Stream Profile (WPS)/Waste Acceptance Criteria (WAC) program for industrial wastewaters indirectly discharged at plant. Treatment units include mechanical bar screen, grit chamber, splinter box where glycerin (microorganism food source) and soda ash (alkalinity adjustment) are added, two equalization basins, aeration basins where dog food may be added to promote biological growth, two secondary clarifiers with one used as digester, chlorine contact chamber (mixed oxidant or MIOX treatment) and effluent holding pond. From the holding pond, treated effluent is pumped to the TA-3 Reuse Tank and discharged to Outfall 001. Solids from bar screen and grit chamber are disposed at landfill. Waste sludge is mixed with polymer to flocculate into large pieces and discharged to sludge drying beds. Dechlorination occurs at TA-3 Manhole A when discharged at Outfall 001 or at SWWS if discharged at Outfall 13S.

**SECTION H - SLUDGE DISPOSAL – CONT'D**

**DETAILS – CONT'D**: Provided written procedures (SWWS Biosolids Monitoring Requirements and Limits for Land Application) described that dried sewage sludge is to be treated to "exceptional quality" Class A biosolids requirements for "pubic contact site" or disposal at landfill. SWWS compost facility is registered with the State of New Mexico Certificate No. 0215151C (20.9.3.27 NMAC). The provided Operations Manager's signed certification on 03/20/18 appears to have been conducted for state compost registration prior to sample collection on 06/06/2018 and 08/15/2018. Facility representatives described that compost has only been land applied at the federal SWWS facility. Facility monitors pollutants in Table I Ceiling Concentrations milligram per kilogram (mg/kg) dry weight in Part IV, Element 1(Land Application) of the Permit once per year (<290 metric tons per 365-day period). In written procedures, Class A Pathogen Control Alternative 5 (one of the processes to Further reduce Pathogens (PFRP) described in 503 Appendix B, which in this case is composting) was selected. In written procedures, Vector Attraction Reduction Requirements Alternative 5 (aerobic process, 14 days or longer, temperature higher than 40 deg C, average temp higher than 45 deg C) was selected.

**Record Keeping/Certification Language**: Certification language included in provided written procedures for the selected Class A biosolids did not match the regulations referenced in Section III.5 (Recordkeeping Requirements, Specific to Bulk or Bagged Sewage Sludge Meeting Pollutant Concentrations in Table 3 and Class A Pathogen Reduction Requirements) of the Permit. Section III.5 of the Permit refers to 40 CFR 503.17(a)(1)(ii) or 503.17(a)(3)(i)(B) which state:

> 40 CFR 503.17(a)(1)(ii) states *"…I certify, under penalty of law, that the information that will be used to determine compliance with the Class A pathogen requirements in §503.32(a) and the vector attraction reduction requirement in [insert one of the vector attraction reduction requirements in §503.33(b)(1) through §503.33(b)(8)] was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."*
>
> 40 CFR 503.17(a)(3)(i)(B) states *"…I certify, under penalty of law, that the information that will be used to determine compliance with the Class A pathogen requirements in §503.32(a) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."*

The following is an excerpt from the facility's written procedures that that includes language in the first sentence not found in 40 CFR 503.17(a):

EPC-DO: 18-130 Enclosure 2 LAUR-18-22309

6. Certification Statement Required for Recordkeeping

"I certify under penalty of law, that the pathogen requirements in §503.32(a)(7) and the Process to Further Reduce Pathogens in Part 503 Appendix B, and the vector attraction reduction requirements in §503.33(b)(5) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment."

**SECTION H - SLUDGE DISPOSAL – CONT'D**

**Comments/Recommended Considerations for Written Procedures**:

- Provided analytical data (Pace analytical report dated August 22, 2018) provides results for Fecal Coliform (<304.4 MPN/g) microbiology by EPA Method 1681. EPA Method: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using A-1 medium, July 2006, is an approved alternative method per 40 CFR § 503.8 (b) and 40 CFR §136.1 (Applicability). On the laboratory report the lab analyte "Fecal Coliform – Class B" is noted. EPA Method 1681 states:

  *"A biosolid sample is classified as Class A if it contains a fecal coliform density below 1,000 MPN/g of total solids (dry weight basis). A biosolid sample is classified as Class B if the geometric mean fecal coliform density is less than 2 × 106 MPN/g of total solids (dry weight basis)."*

  *"To satisfy the pathogen reduction monitoring alternatives for Class B biosolids, seven samples of treated biosolids are collected at the time of use or disposal and the geometric mean fecal coliform bacterial density of these samples is confirmed not to exceed 2 × 106 MPN/g of total solids (dry weight basis). Although the Part 503 regulation does not specify the total number of samples for Class A biosolids, it is recommended that a sampling event extend over two weeks, and that at least seven samples be tested to confirm that the mean bacterial density of the samples is below 1,000 MPN/g of total solids (dry weight basis). The analysis of seven samples increases the method precision by reducing the standard error caused by inherent variations in biosolid quality."*

  Follow up with the laboratory on the Class B notation on analytical reports when the Facility has selected Class A should be considered and may be clarified in written procedures. Also, the method sampling event recommendations in EPA Method 1681 should be considered, and if selected, then documented in written procedures and sample collection forms.

**Outfall 022 - Sigma Emergency Cooling / Roof Drain System**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes*** ).
DETAILS: **Permit authorizes discharge of storm water, roof drain water, and once-through cooling water for emergency use. March 2019 Renewal Application package lists once-through cooling water (not routine), foundry treated emergency cooling water (not routine), and stormwater from TA-3-66 roof drains. Corrosion inhibitor chemicals used in operations of once-through cooling water.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** ☐ Y ☒ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. ☐ Y ☒ N ☐ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. **DMR comments indicate when "origin of discharge unknown"** ☐ Y ☒ N ☐ NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***Yes*** ).
DETAILS: **Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMRs) of the Permit. See Sections D & F below.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Minimum pH** ☐ Y ☒ N ☐ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☒ S ☐ M ☐ U ☐ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☒ Y ☐ N ☐ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☒ Y ☐ N ☐ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☒ Y ☐ N ☐ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☒ Y ☐ N ☐ NA

e) DATES AND TIMES OF ANALYSES. **TRC (renewal application) and pH** ☐ Y ☒ N ☐ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☒ Y ☐ N ☐ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **Not evaluated** ☐ S ☐ M ☐ U ☒ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED* ***No*** ).
DETAILS: **Authorized discharge is not routine. Flow is dechlorinated even if discharge does not contain once-through cooling water. On day of facility tour, number of tablets and installation appeared insufficient to ensure larger flows would make contact with tablets. Observation was not made during larger flows from once-through or emergency cooling water discharge. See below for Photo (Page 4 of 4).**

1. TREATMENT UNITS PROPERLY OPERATED. ☐ S ☐ M ☐ U ☒ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. **De-chlorination tablets / Installation at outfall** ☐ S ☒ M ☐ U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☐ S ☐ M ☐ U ☒ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☐ S ☐ M ☐ U ☒ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☒ S ☐ M ☐ U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. ☒ S ☐ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. ☐ Y ☐ N ☒ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Manufacturer Label/Instructions** ☐ Y ☐ N ☒ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Current permit requires monitoring for TSS, TRC, Total Recoverable Aluminum, Dissolve Copper, Adjusted Gross Alpha, and pH.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **The bottom portion of the outfall pipe was broken. Permit requires estimate flow measurements not subject to accuracy provisions of Part III.C.6 of the Permit. Estimated flow for each source average 0.0010 + 0.0010 + 0.0014 MGD / Max 0.014 + 0.028 + 0.007 MGD, once-through cooling water, foundry cooling water and stormwater from roof drains (Source: March 2019 Renewal Application).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☐ Y ☐ N ☒ NA
TYPE OF DEVICE:_____

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☐ Y ☐ N ☒ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications on one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Laboratory = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **022** | **None** | **None** | **None** | **None** | **None** | **Clear** | **Unknown** |

RECEIVING WATER OBSERVATIONS: **Origin of discharge unknown (see Section A). No reported effluent limitation exceedances during permit term. Discharges above Mortandad Canyon in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No** ).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE – CONT'D**

Image Details: Arrow points to one of several Vit D-Chlor tablets which were installed in a black geotextile net material below the outfall pipe. Not shown in this photograph is the low flow discharge from the outfall pipe observed on the day of this CEI.

LAUR-19-26158

**Outfall 04A022**
**Outfall Discharge Location Showing Outfall, Flow Path, and Location of Dechlorination Tablets**
**Photograph Taken June 19, 2019 at 3:36PM**

Image Source: The above photograph was taken by Jennifer Griffin, Triad, EPC-CP as requested by Erin Shea, NMED SWQB on June 19, 2019 at 1536 hours. The image above is an excerpt from an Adobe Acrobat file provided by Ms. Griffin who maintained the original electronic image.

**Outfall 027 - Strategic Computing Complex (SCC)**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☐ M ☒ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit authorizes discharge of cooling tower blowdown and other wastewater. Potable water and/or SWWS SERF treated reuse makeup; and chlorine testing, corrosion inhibitor, antiscalant and biocide chemicals used in operations. SCC was undergoing construction/installation to increase cooling towers from 10 to 15 during this CEI.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. ☐ Y ☒ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. **See Further Explanations** ☐ Y ☒ N ☐ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. ☒ Y ☐ N ☐ NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☐ U ☒ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Outfall pipe was reportedly capped on September 9, 2016. NA = Not evaluated due to construction/no recent discharge.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **See Further Explanations for DMRs** ☐ Y ☐ N ☒ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☐ S ☐ M ☐ U ☒ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☐ Y ☐ N ☒ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☐ Y ☐ N ☒ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☐ Y ☐ N ☒ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☐ Y ☐ N ☒ NA

e) DATES AND TIMES OF ANALYSES. **See Further Explanations for TRC and pH** ☐ Y ☐ N ☒ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☐ Y ☐ N ☒ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☐ S ☐ M ☐ U ☒ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. ☐ S ☐ M ☐ U ☒ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. **PCBs** ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **SCC cooling towers described to operate 7 days/week. Blowdown from SCC can be routed to SWWS or SERF for treatment, discharged at Outfall 001, or Outfall 027. Blowdown from SCC would be dechlorinated with Sodium Metabisulfite at the facility prior to discharge at Outfall 027. Facility representative described that there are approximately 5 maintenance/operators staff available 5-days week. Treatment system preventative maintenance may be supplemented by vendor support. SCC treatment facilities were not evaluated due to construction.**

1. TREATMENT UNITS PROPERLY OPERATED. ☐ S ☐ M ☐ U ☒ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. ☐ S ☐ M ☐ U ☒ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☐ S ☐ M ☐ U ☒ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☐ S ☐ M ☐ U ☒ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☐ S ☐ M ☐ U ☒ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. ☐ S ☐ M ☐ U ☒ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☐ S ☐ M ☐ U ☒ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Updates may be needed due to new construction** ☐ Y ☐ N ☒ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **See above** ☐ Y ☐ N ☒ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **See above** ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit requires monitoring for TSS, TRC, Total Phosphorus, E.coli, Total PCB, Total Recoverable Aluminum, Dissolved Copper, Adjusted Gross Alpha, Chromium VI, pH and WET. NA = Not evaluated due to construction/no recent discharge.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **Not required in Current Permit** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☐ Y ☐ N ☒ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **WET requires 3-hr Composite Sample** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☐ Y ☐ N ☒ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☐ N ☒ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☐ Y ☐ N ☒ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6 of the Permit. Average flow = 0.051 MGD / Max 0.105 MGD. Potential Average flow = 0.076 / maximum 0.157 MGD (Source: March 2019 Renewal Application). NA = Not evaluated due to construction and no recent discharge.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☐ Y ☐ N ☒ NA
TYPE OF DEVICE: **Flow Meter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☐ Y ☐ N ☒ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☐ Y ☐ N ☒ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. See Further Explanations for record keeping and holding times for TRC and pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory excerpt for pH – See Further Explanations for updates/clarifications on one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**
**Pacific EcoRisk / 2250 Cordelia Road, Fairfield, CA 94534 / 707-207-7760 / WET**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **027** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **pH** |

RECEIVING WATER OBSERVATIONS: **WET testing with Ceriodaphnia dubia and Flathead Minnow species conducted in 2015 passed as summarized in March 2019 Renewal Application. Direct discharge would be to Sandia Canyon in 20.6.4.126 NMAC below Outfall 001. pH (9.1 s.u.) exceeded maximum effluent limitation in Part I of the Permit in August 2016.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**Outfall 048 - Los Alamos Neutron Science Center (LANSCE) Cooling Towers**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).
DETAILS: **Permit authorizes discharge of cooling tower blowdown and other wastewater. Potable water makeup, and corrosion inhibitor, biocide and chlorine laboratory testing chemicals used in operations. Two sets of 5 cooling towers have one discharge location at the outfall.**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanation** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. | ☐ Y ☐ N ☒ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).
DETAILS: **Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMRs) of the Permit. See Sections D & F below.**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Minimum pH** | ☐ Y ☒ N ☐ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☒ S ☐ M ☐ U ☐ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☒ Y ☐ N ☐ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☒ Y ☐ N ☐ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☒ Y ☐ N ☐ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☒ Y ☐ N ☐ NA |
| e) DATES AND TIMES OF ANALYSES. **TRC and pH** | ☐ Y ☒ N ☐ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☒ Y ☐ N ☐ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **See Section C** | ☐ S ☒ M ☐ U ☐ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. | ☐ Y ☐ N ☒ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **No** ).
DETAILS: **Facility operates 7 days a week with 4 staff / 2 back up shared with LEDA (Outfall 113). New system for arsenic control checks was being tested by environmental operator. Wastewater is dechlorinated with Sodium Bisulfite. Reviewed O&M record-keeping did not document actions taken when process control checks exceeded facility's selected chlorine action level.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☒ S ☐ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. **Not documented / See details above** | ☐ S ☒ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Updates needed for new arsenic monitoring system** | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Review appears needed for record keeping** | ☒ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit requires monitoring for TSS, Total Phosphorus, TRC, Total Arsenic, Dissolved Copper, Total Mercury, Dissolved Mercury, Total Recoverable Aluminum, Adjusted Gross Alpha, Chromium VI and pH.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. **See Further Explanations** ☐ Y ☒ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. ☒ Y ☐ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6. Flow Average 0.088 MGD / Max 0.169 MGD (Source: March 2019 Renewal Application).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Flow Meter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory excerpt for pH – See Further Explanations for updates/clarifications on one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.col**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **048** | **None** | **None** | **None** | **None** | **None** | **Clear** | **None** |

RECEIVING WATER OBSERVATIONS: **No reported effluent limitation exceedances since last CEI in 2015. Outfall above Los Alamos Canyon in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**Outfall 051 - Radioactive Liquid Waste Treatment Facility (RLWTF)**

| **Los Alamos National Laboratory / Sanitary & Industrial / Outfall 051**<br>**TA-50 / Radioactive Liquid Waste Treatment Facility (RLWTF)** | PERMIT NO. **NM0028355 – 051**<br>June & July 2019, Page 1 of 5 |
|---|---|

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **No***).
DETAILS: **Permit authorizes treated radioactive liquid waste. RLWTF receives and treats radioactive liquid waste, cooling wastewaters and/or stormwater from various LANL facilities. Future improvements to RLWTF include a newly constructed main low-level waste (LLW) treatment facility.**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. | ☐ Y ☐ N ☒ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☒ S ☐ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **No** *).
DETAILS: **Loading calculations for TSS required in Current Permit. NA = Not evaluated (reporting occurred after this CEI) or not applicable.**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. | ☐ Y ☐ N ☒ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☐ S ☐ M ☐ U ☒ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☐ Y ☐ N ☒ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☐ Y ☐ N ☒ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☐ Y ☐ N ☒ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☐ Y ☐ N ☒ NA |
| e) DATES AND TIMES OF ANALYSES. **See Further Explanations for TRC and pH** | ☐ Y ☐ N ☒ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☐ Y ☐ N ☒ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. | ☐ S ☐ M ☐ U ☒ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. **See above** | ☐ Y ☐ N ☒ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**)*.
DETAILS: **Facility operations are described as 4 days/week with 10 staff that include operators, engineers and 2 chemists. Facility has a Waste Stream Profile (WPS) / Waste Acceptance Criteria (WAC) program for industrial process wastewaters treated at the plant. See below for additional details.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☒ S ☐ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Review/updates may be needed (new LLW facility)** | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **See above** | ☒ Y ☐ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **See above** | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☒ Y ☐ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☒ Y ☐ N ☐ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? **Valve Replaced** ☒ Y ☐ N ☐ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**)*. DETAILS: **Permit requires monitoring for COD, TSS, TTO, Radium 226+228, Total Metals, Total Hardness, TRC, Perchlorate, Total PCB, Total Recoverable Aluminum, Adjusted Gross Alpha, Chromium II and VI, pH, WET and additional effluent characteristic term pollutants. NA = Not Evaluated (Analyses/Reporting after CEI).**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. ☒ Y ☐ N ☐ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☒ Y ☐ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. ☒ Y ☐ N ☐ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☐ N ☒ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **See Further Explanations – pH** ☐ Y ☐ N ☒ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**)*. DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6 of the Permit. Average batch discharge would be 20,000 gallons. Flow average = 0.020 MGD / maximum 0.040 MGD (Source: March 2019 Renewal Application). Meter installation/field calibration completed September 2018 reported wi/ 5%.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Flow Meter Signet 2551 Magmeter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☒ Y ☐ N ☐ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☒ Y ☐ N ☐ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. **Applicable if future discharge** ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** )*. DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

**Overall satisfactory except for pH – See Further Explanations**

4. QUALITY CONTROL PROCEDURES ADEQUATE. **for updates/clarifications needed in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**
**Pacific EcoRisk / 2250 Cordelia Road, Fairfield, CA 94534 / 707-207-7760 / WET**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **051** | **None** | **None** | **None** | **None** | **None** | **Clear** | **WET** |

RECEIVING WATER OBSERVATIONS: **Sample collection activities / effluent during the June 18, 2019 discharge were observed at the representative monitoring location / sampling port (not the receiving water) during this CEI. Discharge is directly to Effluent Canyon then Mortandad Canyon, both, in 20.6.4.128 NMAC. See below for additional details on exceedance of WET limitation.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*

DETAILS: **This section is intended for findings under 40 CFR 503 which is not applicable for this facility / outfall.**

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

DETAILS - (CONT'D): Trucked or gravity fed collection system for low level waste (LLW) collection system enters the facility influent holding tanks. The main LLW treatment process includes chemical precipitation, pressure and vacuum filtration, ion exchange, reverse osmosis and sedimentation. Secondary treatment process for LLW includes a rotary vacuum filter. Sludge from the rotary vacuum filter is drummed and shipped offsite for disposal. A separate transuranic (TRU) influent gravity fed collection system enters the facility and has a separate treatment process. LLW concentrate from the TRU and LLW treatment processes is combined for off-site disposal. RLWTF transuranic treatment process sludge is solidified with cement and shipped to the Waste Isolation Pilot Plant. Discharge would not occur if wastewater is treated by mechanical evaporator system (MES) or if piped to the TA-52 solar evaporation tanks (SET).

Water tightness test of the Outfall 051 pipeline was reportedly successfully completed on May 24, 2019 under NMED Ground Water Quality Bureau Discharge Permit DP-1132 (Source: USDOE NNSA LAFO/Triad letter to NMED dated June 12, 2019). Facility collects and analyses process control samples prior to discharge. Record-keeping for process control samples (not discharge, not required to be reported on DMRs) from the effluent frac tank collected on May 25, 2019 are provided below:

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**Attachment B, Frac Tank Sampling Disposition Form**

(Page 1 of 1)

☑ North Frac Tank _____ ☐ South Frac Tank _____

Process Sample #: 19.74293

Sample Date: 5-25-19 Time: 1400 Sampled By: ERW

| Analysis | Result & Units | NPDES Discharge Standard | Analyst | Comments |
|---|---|---|---|---|
| pH | 6.8 (8.3) | 6-9 s.u. | mcr | (after hardness) |
| TDS | 63 mg/L (210) | 1,000 mg/L | mcr | (after hardness) |
| Gross alpha | < 10 pCi/L | 140 pCi/L | mcr | |
| Tritium | 5.9 nCi/L | 19 nCi/L | mcr | |
| $NO_3$-N + $NO_2$-N | (5+0.3) mg/L (5+0.3) | 10 mg/L | RMH | |
| Total N | 8 mg/L (8) | 15 mg/L | RMH | |
| Perchlorate | 0 µg/L (0) | 13.8 µg/L | RMH | |
| *TRC | < MDL (50 µg/L) | 11 µg/L | mcr | |
| *Copper | 7.6 µg/L | 14 µg/L | mcr | |
| *Hardness | 63 mg/L | ≥50 mg/L (as $CaCO_3$) | mcr | |

*Additional analyses if planning to discharge to Outfall 051

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

During the first attempt at a planned discharge in 2019, a reported treated effluent valve leak occurred on June 4, 2019 resulting in an approximate 2-gallon release on a concrete pad which was contained. Treated effluent flow was stopped prior to it reaching Effluent Canyon according to facility representatives. A written report and corrective action of the leak was provided to USEPA in the 2019 June DMR. The 2nd planned discharge occurred during this CEI on June 18, 2019. Batch discharge of 20,000-gallon effluent tank takes approximately 4-5 hours at an estimated 45-50 gallons per minute from the 4-inch effluent pipe. Prior to June 18, 2019, the facility had not previously discharged to Outfall 051 since November 2010.

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS (CONT'D)**

Outfall 051 Whole Effluent Toxicity (WET) effluent limits for No Observed Effect Concentration (NOEC) for Daphnia pulex water flea at 100% effluent become effective on March 1, 2016 per Part I.B (Compliance Schedules) of the Permit. Process/operational WET test results (passed) as summarized in the 2019 March Renewal Application. Written 5-day non-compliance report for a failed WET effluent limitation to USEPA dated July 1, 2019 describing that there were significant reductions in the Daphnia pulex survival and that the NOEC was 56% effluent. The receiving water was reported to not have been flowing (i.e., no dilution / 100% effluent in the receiving watercourse). The cause of the noncompliance with the WET test has not been determined. June 2019 DMRs were submitted to USEPA on July 26, 2019.

No other exceedances of Permit effluent limitations have been reported. Other effluent characteristic data required in Part I.E of the Permit were attached to the June 2019 DMR and available for evaluation during the permit renewal process. LANL also reports Outfall 051 radioactive effluent quality for alpha and beta isotopes to the U.S. Department of Energy and provides other pollutant data to NMED GWQB under DP-1132.

**Outfall 055 - High Explosives Wastewater Treatment Facility (HEWTF)**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit authorizes discharge of treated waste water from HEWTF.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** ☐ Y ☒ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. ☐ Y ☐ N ☒ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. **Permitted if discharge** ☒ Y ☐ N ☐ NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☐ U ☒ NA (*FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **NA = Not evaluated / Last discharge in 2007. Loading is not required to be reported in Current Permit.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. ☐ Y ☐ N ☒ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☐ S ☐ M ☐ U ☒ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☐ Y ☐ N ☒ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☐ Y ☐ N ☒ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☐ Y ☐ N ☒ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☐ Y ☐ N ☒ NA

e) DATES AND TIMES OF ANALYSES. ☐ Y ☐ N ☒ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☐ Y ☐ N ☒ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☐ S ☐ M ☐ U ☒ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **Not evaluated** ☐ S ☐ M ☐ U ☒ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. **See above** ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS: **Facility has a Waste Stream Profile (WPS) / Waste Acceptance Criteria (WAC) program for industrial process wastewaters treated at the plant. Trucked wastewaters are treated by sand filters, granular activated carbon (GAC) adsorption, ion exchange for Barium and Perchlorate removal, and evaporation. Facility would operate less than one day a week (<10% of the year) with one primary operator. Discharge would not /does not occur when final treatment is by electric evaporator.**

1. TREATMENT UNITS PROPERLY OPERATED. ☒ S ☐ M ☐ U ☐ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. **See details below** ☐ S ☒ M ☐ U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☒ S ☐ M ☐ U ☐ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☒ S ☐ M ☐ U ☐ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☒ S ☐ M ☐ U ☐ NA

**Additional staff/operator planned per facility representatives**

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **No backup staff provided at this time** ☐ S ☒ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☒ S ☐ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. ☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. ☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. ☒ Y ☐ N ☐ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires monitoring for COD, TSS, TTO, Oil & Grease, trinitrotoluene (TNT), Total RDX, Perchlorate, Total Recoverable Aluminum, Adjusted Gross Alpha, pH, WET, and one-time discharge effluent characteristic analysis per Part I.E of the Permit. NA = Not evaluated due to no recent discharge or not applicable.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **Location described at outfall** ☐ Y ☐ N ☒ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☐ Y ☐ N ☒ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☐ Y ☐ N ☒ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **WET testing 3-hr composite in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☐ Y ☐ N ☒ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. ☐ Y ☐ N ☒ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☐ Y ☐ N ☒ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6 of the Permit. Flow Average 0.0003 / Max 0.0021 MGD (Source: March 2019 Renewal Application). NA = Not evaluated due to no recent discharge or not applicable.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☐ Y ☐ N ☒ NA
TYPE OF DEVICE:_____

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☐ Y ☐ N ☒ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☐ Y ☐ N ☒ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Operation effluent characteristic data provided in 2019 Renewal Application. See Further Explanations for holding times not documented for pH and TRC.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Laboratory = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **055** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **None** |

RECEIVING WATER OBSERVATIONS: **Discharge would be above unnamed tributary to Cañon de Valle, both, in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No** ).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

**DETAILS – CONT'D:** Influent equalization and 2 post treated storage tanks are outside the building on concrete slabs. Rust on bolts and staining on slabs was observed. Slabs had cracks. A preventative maintenance inspection that includes among other things slabs, hoses, lines, valves, outfall pipe connections appears needed prior to discharge. No evidence of discharge or unauthorized flows were observed on the day of this CEI.

LAUR-19-26158

**Outfall 05A055**
**Condition of Exterior Storage Tanks**
**Photograph Tank June 19, 2019, 10:51AM**

Image Source: The above photograph was taken by Jennifer Griffin, Triad, EPC-CP as requested by Erin Shea, NMED SWQB on June 19, 2019 at 1051 hours. The image above is an excerpt from an Adobe Acrobat file provided by Ms. Griffin who maintained the original electronic image.

**Outfall 113 - Low-Energy Demonstration Accelerator (LEDA) Cooling Towers**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit authorizes discharge of cooling tower blowdown and other wastewater at Los Alamos Neutron Science Center (LANSCE) Laboratory LEDA. Potable water makeup, and corrosion inhibitor and biocide chemicals used in operations. Outlets for two separate cooling tower systems exist at the same outfall. Slip line provided for TA-53-952, but stormwater would co-mingle if TA-53-293 discharges (see Section D below).**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. **Potential Future Flows** | ☒ Y ☐ N ☐ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. **Clarification/Conditions may be needed** | ☐ Y ☒ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMRs) of the Permit. See Sections D & F below.**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. | ☒ Y ☐ N ☐ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☒ S ☐ M ☐ U ☐ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☒ Y ☐ N ☐ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☒ Y ☐ N ☐ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☒ Y ☐ N ☐ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☒ Y ☐ N ☐ NA |
| e) DATES AND TIMES OF ANALYSES. **TRC and pH** | ☐ Y ☒ N ☐ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☒ Y ☐ N ☐ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. **See Section C** | ☐ S ☒ M ☐ U ☐ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. | ☐ Y ☐ N ☒ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **TA-53-952 operates 7 days a week (Source: March 2019 Renewal Application) with 4 staff / 2 back up shared with LANSCE (Outfall 048). Wastewater is dechlorinated with Sodium Bisulfite. Reviewed O&M record-keeping did not document actions taken when process control checks exceeded facility's selected chlorine action level.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. | ☒ S ☐ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. **Not documented / See details above** | ☐ S ☒ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☒ S ☐ M ☐ U ☐ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. | ☒ S ☐ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☒ S ☐ M ☐ U ☐ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **Review appears needed for record keeping** | ☐ Y ☒ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit requires monitoring for TSS, TRC, Total Phosphorus, Dissolved Copper, Total Recoverable Aluminum, Adjusted Gross Alpha, and pH.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

**TA-53-952 = ☒ Y**

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **TA-53-293 = ☒ N if comingled w/stormwater** ☐ Y ☒ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6. Flow TA-53-952 average 0.001576 MGD / max 0.01459 MGD; storm water average 0.016763 MGD / max 0.1367 MGD; and potential TA-53-293 average 0.0006 MGD / max 0.0016 MGD (Source March 2019 Renewal Application).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Flow meter / totalizer (no meter installed for stormwater)**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications needed in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **113 (952)** | **None** | **None** | **None** | **None** | **None** | **Clear** | **None** |
| **113 (293)** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **None** |

RECEIVING WATER OBSERVATIONS: **No reported effluent limitation exceedances during permit term. Discharges are to tributary above Sandia Canyon in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED
GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY _____

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**Outfall 160 - National High Magnetic Field Laboratory (NHMFL) Cooling Towers**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).
DETAILS: **Permit authorizes discharge of cooling tower blowdown and other wastewater. Potable water makeup, and corrosion inhibitor and biocide chemicals used in operations. Notified changes to the cooling towers and re-installation of treatment system was in progress.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** ☐ Y ☒ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. **See above** ☒ Y ☐ N ☐ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. ☒ Y ☐ N ☐ NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☐ M ☐ U ☒ NA (*FURTHER EXPLANATION ATTACHED **No** ).
DETAILS: **NA = Not evaluated / No recent discharge. Loading is not required to be reported in Current Permit.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. ☐ Y ☐ N ☒ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☐ S ☐ M ☐ U ☒ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☐ Y ☐ N ☒ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☐ Y ☐ N ☒ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☐ Y ☐ N ☒ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☐ Y ☐ N ☒ NA

e) DATES AND TIMES OF ANALYSES. ☐ Y ☐ N ☒ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☐ Y ☐ N ☒ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☐ S ☐ M ☐ U ☒ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. ☐ S ☐ M ☐ U ☒ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. **See above** ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Flows routed to SWWS on May 3, 2018. Treatment facility would operate approximately 2 days/week for 7 months with 1 to 2 operators. Facility uses Sodium Bisulfite de-chlorination prior to discharge. Cooling tower treatment facilities were dismantled pending construction/installation on day of facility tour. Overall O&M not evaluated due to construction.**

1. TREATMENT UNITS PROPERLY OPERATED. ☐ S ☐ M ☐ U ☒ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. ☐ S ☐ M ☐ U ☒ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☐ S ☐ M ☐ U ☒ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. ☐ S ☐ M ☐ U ☒ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☐ S ☐ M ☐ U ☒ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. ☒ S ☐ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. ☐ S ☐ M ☐ U ☒ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. **Updates will be needed due to new construction** ☐ Y ☐ N ☒ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. **See above** ☐ Y ☐ N ☒ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **See above** ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **No discharge since May 2018. Permit monitoring includes TSS, Total Phosphorus, TRC, Total Arsenic, Total Copper, Total Cyanide, Total Recoverable Aluminum, Adjusted Gross Alpha, Chromium VI and pH. No 1/year sample collected for Total Arsenic and Aluminum "NODI-E" reported on 10/01/2017 thru 09/30/2018 DMR. Written non-compliance / corrective action report submitted with 12/03/2018 DMR package.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. **Location after treatment before storm sewer inlet** ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. **Aluminum 2017-2018 Period** **Arsenic 2017-2018 Period** ☐ Y ☒ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. ☐ Y ☐ N ☒ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit.** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? ☐ Y ☐ N ☒ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy provisions in Part III.C.6. Flow Average 0.002567 MGD / Max 0.00647 MGD (Source: March 2019 Renewal Application). NA = Not evaluated due to construction or not applicable.**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☐ Y ☐ N ☒ NA
TYPE OF DEVICE: **Flow Meter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☐ Y ☐ N ☒ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☐ Y ☐ N ☒ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications needed in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **160** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **No Discharge** | **None** |

RECEIVING WATER OBSERVATIONS: **No reported effluent limitation exceedances during permit term. Receiving waters not observed. Discharge is above Ten Site Canyon, a tributary to Mortandad Canyon (within LANL), both in 20.6.4.128 NMAC.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**Outfall 181 - TA-55 Cooling Towers**

| **Los Alamos National Laboratory / Sanitary & Industrial / Outfall 03A181**<br>**TA-55 Cooling Towers** | PERMIT NO. **NM0028355 – 181**<br>June & July 2019, Page 1 of 3 |
|---|---|

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes**).*

DETAILS: **Permit authorizes discharge of stormwater, cooling tower blowdown and other wastewater. Stormwater was described to have been re-directed/no longer co-mingles with discharge. Potable water makeup, scale inhibitor, pH adjustment, and biocide chemicals used in operations. March 2019 Renewal Application describes potential future changes to route TA-55 blowdown to TA-3-336 Reuse Tank (See Outfall 001 and/or Outfall 027).**

| | |
|---|---|
| 1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** | ☐ Y ☒ N ☐ NA |
| 2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. **Permit update needed** | ☒ Y ☐ N ☐ NA |
| 3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. | ☒ Y ☐ N ☐ NA |
| 4. ALL DISCHARGES ARE PERMITTED. | ☒ Y ☐ N ☐ NA |

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes**).*

DETAILS: **Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMRs) of the Permit. See Sections D & F below.**

| | |
|---|---|
| 1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Minimum pH** | ☐ Y ☒ N ☐ NA |
| 2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. | ☒ S ☐ M ☐ U ☐ NA |
| a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. | ☒ Y ☐ N ☐ NA |
| b) NAME OF INDIVIDUAL PERFORMING SAMPLING. | ☒ Y ☐ N ☐ NA |
| c) ANALYTICAL METHODS AND TECHNIQUES. | ☒ Y ☐ N ☐ NA |
| d) RESULTS OF ANALYSES AND CALIBRATIONS. | ☒ Y ☐ N ☐ NA |
| e) DATES AND TIMES OF ANALYSES. **TRC and pH** | ☐ Y ☒ N ☐ NA |
| f) NAME OF PERSON(S) PERFORMING ANALYSES. | ☒ Y ☐ N ☐ NA |
| 3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. | ☒ S ☐ M ☐ U ☐ NA |
| 4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. | ☒ S ☐ M ☐ U ☐ NA |
| 5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. | ☐ Y ☐ N ☒ NA |

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

DETAILS: **TA-55 cooling towers operate 7 days/week with one primary operator supported by maintenance staff. No sampling port to conduct process control checks. Wastewater is dechlorinated with ascorbic acid prior to discharge. Reported June 2019 TRC exceedance occurred when valve was accidently misaligned during construction.**

| | |
|---|---|
| 1. TREATMENT UNITS PROPERLY OPERATED. **June 2019 = Unsatisfactory (valve / operation checks)** | ☐ S ☒ M ☐ U ☐ NA |
| 2. TREATMENT UNITS PROPERLY MAINTAINED. **June 2019 = Unsatisfactory (valve / maintenance checks)** | ☐ S ☒ M ☐ U ☐ NA |
| 3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. | ☐ S ☐ M ☐ U ☒ NA |
| 4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. | ☐ S ☐ M ☐ U ☒ NA |
| 5. ALL NEEDED TREATMENT UNITS IN SERVICE. | ☒ S ☐ M ☐ U ☐ NA |
| 6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **Back up not described for primary operator** | ☐ S ☒ M ☐ U ☐ NA |
| 7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. | ☐ S ☐ M ☐ U ☒ NA |
| 8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. | ☒ Y ☐ N ☐ NA |
| STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. | ☒ Y ☐ N ☐ NA |
| PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. | ☒ Y ☐ N ☐ NA |

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10. HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Current permit requires monitoring for TSS, Total Phosphorus, TRC and pH.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement not subject to accuracy conditions in Part III.C.6. Flow Average 0.009 MGD / Max 0.032 MGD (Source: March 2019 Renewal Application)**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Flow Meter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes**).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications needed in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **181** | **No discharge** | **No discharge** | **No discharge** | **No discharge** | **No discharge** | **No discharge** | **TRC** |

RECEIVING WATER OBSERVATIONS: **Not observed / not discharging during facility tour. Outfall 181 discharges above Effluent Canyon, a tributary to Mortandad Canyon (within LANL), both in 20.6.4.128 NMAC. Reported Total Residual Chlorine (TRC) in June 2019 (40 µg/L) exceeded effluent limitation (11 µg/L) in Part I of Permit. Following this CEI, reported TRC exceedance occurred on July 9, 2019.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA

**Outfall 199 - Laboratory Data Communications Center (LDCC) Cooling Towers**

**SECTION A - PERMIT VERIFICATION**

PERMIT SATISFACTORILY ADDRESSES OBSERVATIONS. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit authorizes discharge of cooling tower blowdown and other wastewater. Potable water makeup, corrosion inhibitor, antiscalant, pH adjustment, and biocide chemicals used in operations. Wastewater includes free and total chlorine testing chemicals.**

1. CORRECT NAME AND MAILING ADDRESS OF PERMITTEE. **See Further Explanations** ☐ Y ☒ N ☐ NA

2. NOTIFICATION GIVEN TO EPA/STATE OF NEW, DIFFERENT OR INCREASED DISCHARGES. ☐ Y ☐ N ☒ NA

3. NUMBER AND LOCATION OF DISCHARGE POINTS AS DESCRIBED IN PERMIT. ☒ Y ☐ N ☐ NA

4. ALL DISCHARGES ARE PERMITTED. ☒ Y ☐ N ☐ NA

**SECTION B - RECORDKEEPING AND REPORTING EVALUATION**

RECORDS AND REPORTS MAINTAINED AS REQUIRED BY PERMIT. ☐ S ☒ M ☐ U ☐ NA (*FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Unsatisfactory for TRC and pH based on review of September 2018 logs. See Part III.C.4 (times of analyses) and Part III.D.5 (increased monitoring shall be indicated on DMR) of the Permit. See Sections D & F below.**

1. ANALYTICAL RESULTS CONSISTENT WITH DATA REPORTED ON DMRs. **Minimum pH** ☐ Y ☒ N ☐ NA

2. SAMPLING AND ANALYSES DATA ADEQUATE AND INCLUDE. ☒ S ☐ M ☐ U ☐ NA

a) DATES, TIME(S) AND LOCATION(S) OF SAMPLING. ☒ Y ☐ N ☐ NA

b) NAME OF INDIVIDUAL PERFORMING SAMPLING. ☒ Y ☐ N ☐ NA

c) ANALYTICAL METHODS AND TECHNIQUES. ☒ Y ☐ N ☐ NA

d) RESULTS OF ANALYSES AND CALIBRATIONS. ☒ Y ☐ N ☐ NA

e) DATES AND TIMES OF ANALYSES. **TRC and pH** ☐ Y ☒ N ☐ NA

f) NAME OF PERSON(S) PERFORMING ANALYSES. ☒ Y ☐ N ☐ NA

3. LABORATORY EQUIPMENT CALIBRATION AND MAINTENANCE RECORDS ADEQUATE. ☒ S ☐ M ☐ U ☐ NA

4. PLANT RECORDS INCLUDE SCHEDULES, DATES OF EQUIPMENT MAINTENANCE AND REPAIR. ☒ S ☐ M ☐ U ☐ NA

5. EFFLUENT LOADINGS CALCULATED USING DAILY EFFLUENT FLOW AND DAILY ANALYTICAL DATA. ☐ Y ☐ N ☒ NA

**SECTION C - OPERATIONS AND MAINTENANCE**

TREATMENT FACILITY PROPERLY OPERATED AND MAINTAINED. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **LDCC cooling towers operate 7 days/week. LDCC may send flow to SWWS. Facility representative described approximately 5 staff (maintenance/operators) available 5 days week. Treatment system preventative maintenance supplemented by vendor support. Wastewater is de-chlorinated w/Sodium Metabisufite prior to discharge. June 2019 TRC exceedance occurred when dechlorination chemical levels were not maintained during manual operations due to automatic controller waiting to be replaced (see Part III.B.3 Proper O&M of the Permit).**

1. TREATMENT UNITS PROPERLY OPERATED. ☒ S ☐ M ☐ U ☐ NA

2. TREATMENT UNITS PROPERLY MAINTAINED. **June 2019 = Unsatisfactory** ☐ S ☒ M ☐ U ☐ NA

3. STANDBY POWER OR OTHER EQUIVALENT PROVIDED. ☒ S ☐ M ☐ U ☐ NA

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES AVAILABLE. **June 2019 = Unsatisfactory** ☐ S ☒ M ☐ U ☐ NA

5. ALL NEEDED TREATMENT UNITS IN SERVICE. ☒ S ☐ M ☐ U ☐ NA

6. ADEQUATE NUMBER OF QUALIFIED OPERATORS PROVIDED. **June 2019 = Unsatisfactory** ☐ S ☒ M ☐ U ☐ NA

7. SPARE PARTS AND SUPPLIES INVENTORY MAINTAINED. **June 2019 = Unsatisfactory** ☐ S ☒ M ☐ U ☐ NA

8. OPERATION AND MAINTENANCE MANUAL AVAILABLE. ☒ Y ☐ N ☐ NA
STANDARD OPERATING PROCEDURES AND SCHEDULES ESTABLISHED. ☒ Y ☐ N ☐ NA
PROCEDURES FOR EMERGENCY TREATMENT CONTROL ESTABLISHED. **June 2019 = Unsatisfactory** ☐ Y ☒ N ☐ NA

**SECTION C - OPERATIONS AND MAINTENANCE (CONT'D)**

9. HAVE BYPASSES/OVERFLOWS OCCURRED AT THE PLANT OR IN THE COLLECTION SYSTEM IN THE LAST YEAR? ☐ Y ☒ N ☐ NA
IF SO, HAS THE REGULATORY AGENCY BEEN NOTIFIED? ☐ Y ☐ N ☒ NA
HAS CORRECTIVE ACTION BEEN TAKEN TO PREVENT ADDITIONAL BYPASSES/OVERFLOWS? ☐ Y ☐ N ☒ NA

10.HAVE ANY HYDRAULIC OVERLOADS OCCURRED AT THE TREATMENT PLANT? ☐ Y ☐ N ☒ NA
IF SO, DID PERMIT VIOLATIONS OCCUR AS A RESULT? ☐ Y ☐ N ☒ NA

**SECTION D - SELF-MONITORING**

PERMITTEE SELF-MONITORING MEETS PERMIT REQUIREMENTS. ☐ S ☒ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Permit requires monitoring for TSS, TRC, Total Phosphorus, Total Copper, Total Zinc and pH.**

1. SAMPLES TAKEN AT SITE(S) SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

2. LOCATIONS ADEQUATE FOR REPRESENTATIVE SAMPLES. ☒ Y ☐ N ☐ NA

3. FLOW PROPORTIONED SAMPLES OBTAINED WHEN REQUIRED BY PERMIT. **No composite samples required** ☐ Y ☐ N ☒ NA

4. SAMPLING AND ANALYSES COMPLETED ON PARAMETERS SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

5. SAMPLING AND ANALYSES PERFORMED AT FREQUENCY SPECIFIED IN PERMIT. ☒ Y ☐ N ☐ NA

6. SAMPLE COLLECTION PROCEDURES ADEQUATE. **Holding times for TRC and pH not documented** ☐ Y ☒ N ☐ NA

a) SAMPLES REFRIGERATED DURING COMPOSITING. **No composite samples required in Current Permit** ☐ Y ☐ N ☒ NA

b) PROPER PRESERVATION TECHNIQUES USED. ☒ Y ☐ N ☐ NA

c) CONTAINERS AND SAMPLE HOLDING TIMES CONFORM TO 40 CFR 136.3. **See Further Explanations** ☐ Y ☒ N ☐ NA

7. IF MONITORING AND ANALYSES ARE PERFORMED MORE OFTEN THAN REQUIRED BY PERMIT, ARE THE RESULTS REPORTED IN PERMITTEE'S SELF-MONITORING REPORT? **pH** ☐ Y ☒ N ☐ NA

**SECTION E - FLOW MEASUREMENT**

PERMITTEE FLOW MEASUREMENT MEETS PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No** ).*
DETAILS: **Permit requires estimate flow measurement estimate not subject to accuracy conditions in Part III.C.6. Flow Average = 0.036 MGD / Max 0.074 MGD (Source: March 2019 Renewal Application).**

1. PRIMARY FLOW MEASUREMENT DEVICE PROPERLY INSTALLED AND MAINTAINED. ☒ Y ☐ N ☐ NA
TYPE OF DEVICE: **Flow Meter / Totalizer**

2. FLOW MEASURED AT EACH OUTFALL AS REQUIRED. ☒ Y ☐ N ☐ NA

3. SECONDARY INSTRUMENTS (TOTALIZERS, RECORDERS, ETC.) PROPERLY OPERATED AND MAINTAINED. ☒ Y ☐ N ☐ NA

4. CALIBRATION FREQUENCY ADEQUATE. ☐ Y ☐ N ☒ NA
RECORDS MAINTAINED OF CALIBRATION PROCEDURES. ☐ Y ☐ N ☒ NA
CALIBRATION CHECKS DONE TO ASSURE CONTINUED COMPLIANCE. ☐ Y ☐ N ☒ NA

5. FLOW ENTERING DEVICE WELL DISTRIBUTED ACROSS THE CHANNEL AND FREE OF TURBULENCE. ☐ Y ☐ N ☒ NA

6. HEAD MEASURED AT PROPER LOCATION. ☐ Y ☐ N ☒ NA

7. FLOW MEASUREMENT EQUIPMENT ADEQUATE TO HANDLE EXPECTED RANGE OF FLOW RATES. ☐ Y ☐ N ☒ NA

**SECTION F – LABORATORY**

PERMITTEE LABORATORY PROCEDURES MEET PERMIT REQUIREMENTS. ☒ S ☐ M ☐ U ☐ NA *(FURTHER EXPLANATION ATTACHED **Yes** ).*
DETAILS: **Contract laboratories not inspected. Permittee conducts pH and TRC analyses/measurements on site. As discussed above, holding times not documented for pH and TRC. See Further Explanations for pH.**

1. EPA APPROVED ANALYTICAL PROCEDURES USED *(40 CFR 136.3 FOR LIQUIDS, 503.8(b) FOR SLUDGES)* ☒ Y ☐ N ☐ NA

**SECTION F - LABORATORY (CONT'D)**

2. IF ALTERNATIVE ANALYTICAL PROCEDURES ARE USED, PROPER APPROVAL HAS BEEN OBTAINED. ☒ Y ☐ N ☐ NA

3. SATISFACTORY CALIBRATION AND MAINTENANCE OF INSTRUMENTS AND EQUIPMENT. ☒ S ☐ M ☐ U ☐ NA

4. QUALITY CONTROL PROCEDURES ADEQUATE. **Overall satisfactory except for pH – See Further Explanations for updates/clarifications in one written document** ☒ S ☐ M ☐ U ☐ NA

5. DUPLICATE SAMPLES ARE ANALYZED. **10** % OF THE TIME. ☒ Y ☐ N ☐ NA

6. SPIKED SAMPLES ARE ANALYZED. **pH buffers / TRC / Contract Lab = 100** % OF THE TIME. ☒ Y ☐ N ☐ NA

7. COMMERCIAL LABORATORY USED. ☒ Y ☐ N ☐ NA

LAB NAME / LAB ADDRESS / TELEPHONE / PARAMETERS PERFORMED

**GEL Laboratories LLC / 2040 Savage Road, Charleston SC 29407 / 843-556-8171 / Various**
**New Mexico Water Testing Laboratory, Inc. / 401 North Coronado Ave, Espanola, NM 87532 / 505-929-4545 / E.coli**
**Cape Fear Analytical LLC / 3306 Kitty Hawk Rd Ste 120, Wilmington, NC 28405 / 910-795-0421/ TCDD & Furans**

**SECTION G - EFFLUENT/RECEIVING WATERS OBSERVATIONS.** ☐ S ☐ M ☒ U ☐ NA *(FURTHER EXPLANATION ATTACHED **No**).*

| OUTFALL NO. | OIL SHEEN | GREASE | TURBIDITY | VISIBLE FOAM | FLOAT SOL. | COLOR | OTHER |
|---|---|---|---|---|---|---|---|
| **199** | **None** | **None** | **None** | **None** | **None** | **Clear** | **TRC** |

RECEIVING WATER OBSERVATIONS: **Outfall 199 discharges to tributary in 20.6.4.128 NMAC to Sandia Canyon (Sigma Canyon to NPDES Outfall 001) in 20.6.4.126 NMAC. Tributary at confluence of Sandia Canyon was not observed. Reported Total Residual Chlorine (TRC) in April 2018 (980 µg/L) and June 2019 (402 µg/L) exceeded effluent limitation (11 µg/L) in Part I of the Permit.**

**SECTION H - SLUDGE DISPOSAL**

SLUDGE DISPOSAL MEETS PERMIT REQUIREMENTS. ☐ S ☐ M ☐ U ☒ NA *(FURTHER EXPLANATION ATTACHED **No**).*
DETAILS:

1. SLUDGE MANAGEMENT ADEQUATE TO MAINTAIN EFFLUENT QUALITY. ☐ S ☐ M ☐ U ☒ NA

2. SLUDGE RECORDS MAINTAINED AS REQUIRED BY 40 CFR 503. ☐ S ☐ M ☐ U ☒ NA

3. FOR LAND APPLIED SLUDGE, TYPE OF LAND APPLIED TO: _____(e.g., FOREST, AGRICULTURAL, PUBLIC CONTACT SITE)

**SECTION I - SAMPLING INSPECTION PROCEDURES** *(FURTHER EXPLANATION ATTACHED **No**).*

1. SAMPLES OBTAINED THIS INSPECTION. ☐ Y ☒ N ☐ NA

2. TYPE OF SAMPLE OBTAINED GRAB _____ COMPOSITE SAMPLE _____ METHOD _____ FREQUENCY

3. SAMPLES PRESERVED. ☐ Y ☐ N ☒ NA

4. FLOW PROPORTIONED SAMPLES OBTAINED. ☐ Y ☐ N ☒ NA

5. SAMPLE OBTAINED FROM FACILITY'S SAMPLING DEVICE. ☐ Y ☐ N ☒ NA

6. SAMPLE REPRESENTATIVE OF VOLUME AND MATURE OF DISCHARGE. ☐ Y ☐ N ☒ NA

7. SAMPLE SPLIT WITH PERMITTEE. ☐ Y ☐ N ☒ NA

8. CHAIN-OF-CUSTODY PROCEDURES EMPLOYED. ☐ Y ☐ N ☒ NA

9. SAMPLES COLLECTED IN ACCORDANCE WITH PERMIT. ☐ Y ☐ N ☒ NA